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Assessment Of Adolescent Student's Knowledge Toward Premenstrual Syndrome In Nursing Secondary Schools At Al-Diwanyia Governorate

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الخلاصة:

الهدف: تقييم معارف الطالبات المراهقات حول متلازمة ما قبل الطمث في أعداديات التمريض في محافظة الديوانية .

المنهجية: دراسة وصفية تحليلية لتقييم معارف الطالبات المراهقات حول متلازمة ما قبل الطمث في أعداديات التمريض في محافظة الديوانية للفترة من شباط٢٠١٣- تموز ٢٠١٣ .إختيرت عينة غرضية شملت (٢٨٢) طالبة مصابة بمتلازمة ما قبل الطمث في أعداديات التمريض في محافظة الديوانية(الديوانية- الحمزة – الشامية –عفك). تم بناء استمارة الاستبيان لغرض تحقيق أهداف الدراسة،حيث تكونت الاستمارة من (٣) أجزاء الجزء الأول: يتألف من الخصائص الديموغرافية للعينة و الجزء الثاني :يتألف من خصائص الدورة الحيضية والجزء الثالث :يتألف من أسئلة حول معرفة الطالبات المراهقات بمتلازمة ما قبل الطمث،و يتألف من محور رئيسي واحد وخمسة محاور فرعية.تم تحديد الثبات والمصداقية لها من خلال دراسة تجريبية و صحتها حددت من خلال لجنة مكونة من(١٣)خبيرا.استخدمت إجراءات التحليل الإحصائي الوصفي وإجراءات التحليل الإحصائي ألاستنتاجي لتحليل البيانات و بمستوى دلالة 0% أو اقل .

النتائج: أشارت نتائج الدراسة بأن أغلبية العينة٤٤.٦% كانت معارفهم غير جيدة حول متلازمة ما قبل الطمث.إن تقييم المعارف لم يتأثر بالخصائص الديموغرافية وبعض خصائص الدورة الحيضية للعينة, و هذا يعني إن استمارة الاستبيان هذه يمكن تعميمها لجميع المراهقات لتحقيق أهداف البحث .

التوصيات : أوصت الدراسة بتطوير خدمات الصحة المدرسية من اجل اكتشاف ومعالجة مثل هذه الحالات في عمر المرهقة،احتواء المناهج الدراسية في أعداديات التمريض على المعلومات الأساسية عن اضطرابات الدورة الشهرية وخصوصا متلازمة ما قبل الطمث،تشجيع المصابات بمتلازمة ما قبل الطمث لطلب الرعاية الطبية من قبل الملاك الطبي،تحسين معارف الطالبات المراهقات نحو متلازمة ما قبل الطمث بأتباع سلوك حياتي صحي من خلال الكتيبات،البرامج التثقيفية، وسائل الأعلام،والبحوث.

Abstract:

Objective: to Assess Adolescent Student's Knowledge toward Premenstrual Syndrome in Nursing Secondary Schools at Al- Diwanyia Governorate .

Methodology: A descriptive analytic study was carried out to assess adolescent student's knowledge toward premenstrual syndrome in nursing secondary schools at Al- Diwanyia governorate from February 2013 to July 2013.A purposive sample consist of (282) adolescent student with premenstrual syndrome in nursing secondary schools at Al-Diwanyia governorate (Al-Diwanyia- Al-Hamzah- Al- Shamyia- Afak).A questionnaire was constructed for the purpose of the study, it was composed of three parts, part one: consist of demographic information, part two: consist of menstrual cycle characteristics ,part three: consist of questions regarding adolescent student's knowledge toward premenstrual syndrome, it comprise of one main domain and five sub domains. Reliability of the questionnaire is determined through the pilot study and the validity through a panel of (13) experts. Descriptive statistical analysis procedures and inferential statistical analysis procedures were employed for data analysis, all the statistic procedures were tested at $P \leq 0.05$.

Results: The result revealed that the majority of the study sample 44.6 % had insufficient knowledge toward premenstrual syndrome. The assessment of knowledge is not affected by demographic characteristics and menstrual cycle characteristics, that mean the studied questionnaire can be amend for all individuals of the studied population .

Recommendations: The study recommended to development of school health services for better detection and management of PMS in the adolescent population .Curriculum of nursing secondary schools should contain efficient knowledge about menstrual cycle disorders especially PMS . Encouraged affected girls to seek medical advise from the medical staff .Enhance adolescents students knowledge regarding PMS as well as adapt healthy life style through booklet, educating programs, mass media, articles.

Key words: Assessment, Premenstrual syndrome, Adolescent Student, Knowledge

INTRODUCTION:

Menstruation is a normal physiological process that begins during adolescence and may be associated with various symptoms, occurring before or during the menstrual flow. The most prevalent menstrual disorders among adolescents are excessive uterine bleeding, dysmenorrhea and premenstrual syndrome[(1).] Premenstrual syndrome (PMS) is a common disorder of young and middle-aged women characterized by cyclic occurrence in the luteal phase of the menstrual cycle of a combination of distressing physical, psychological and behavioral changes of sufficient severity to result in deterioration of inter- personal relationships and / or interference with normal activities; which remit upon onset or immediately after menstruation [(2).] Premenstrual syndrome (PMS) symptoms are identified in adolescents and can begin around age 14, or 2 years post-menarche, and continue until menopause [(3).] Premenstrual syndrome is no longer a taboo in western countries, where a lot of publicity, self help books and specialized clinics highlights the importance of premenstrual syndrome to general public and help women to overcome this temporary problem . PMS has been studied and evaluated extensively in the West and only a handful amount of research studies have been conducted in Asia [(4).]Very little information is available on premenstrual syndrome . PMS symptoms have negative impact on academic and social performances of the students. The investigator felt that giving knowledge about PMS will help in coping with the negative impacts of PMS among the adolescent girls. Students are the promising group to country's development. Therefore the investigator felt a strong need to take up this study to assess the knowledge on PMS among adolescent girls.

Methodology:

A descriptive study was conducted on (282) adolescent student in nursing secondary schools at Al- Diwanyia Governorate to assess their knowledge and health behaviors about premenstrual syndrome through the period from.The study was conducted in four nursing secondary schools at Al- Diwaniya Governorate which include : Al-Diwanyia Nursing Secondary School , Al-Hamzah Nursing Secondary School, Al- Shamyiah Nursing Secondary School and Afak Nursing Secondary School .A non probability , purposive sample of (282) adolescent students with premenstrual syndrome (PMS) (according to American College of obstetricians and gynecologist diagnostic criteria) (ACOG,2000) was selected from four nursing secondary schools. For the purpose of the present study a questionnaire format was constructed to assess knowledge and health behaviors of adolescent student regarding premenstrual syndrome . The construction was employed through review of literature and related studies, and background experience .The study instrument comprised of three main parts, part one: Demographic Characteristics It is concerned with the identification of the demographic characteristics of the study group ,which include the following variables (age ,rank of class, education level for student's parents ,occupation for student's parents, residency, and socioeconomic status) .Part two: Menstrual Cycle Characteristics: It is concerned with the identification of the different variables of the study group, which include the following variables : (Age at menarche, duration of menstrual cycle, amount of menstrual flow (assorted respondents by the number of pads that the girls used per day .Menstrual flow defined as (mild, moderate, heavy)upon use of $\leq$ 3,4-5 and $\geq$ 6 pads, respectively) , family history with premenstrual syndrome). Part Three : Adolescent Student's Knowledge: This part consists of items concerning with the knowledge of adolescent student toward premenstrual syndrome .It includes five sub domains and they are responded by yes,(correct answer, scored 3) ,or no,(incorrect answer, scored 2), or don't know (incorrect answer ,scored 1) and these sub domains are : sub domain 1: Definitions of premenstrual syndrome: It includes (2) items ,total score is (6) marks. Sub domain2: Causes and predisposing factor of premenstrual syndrome (PMS) : It includes (5) items ,total score is (15) marks. Sub domain3: Symptoms of premenstrual syndrome (PMS) : It includes (20) items ,total score is (60) marks . Sub domain4: Negative effects of premenstrual syndrome (PMS) : It includes (5) items ,

total score is (15) marks . Sub domain5: Management ways to treat and reduce premenstrual syndrome (PMS) symptoms : It includes (11) items, total score
is (33) marks .The data was collected through utilization of the study instrument (questionnaire format) for the period from 17th February to 19th April 2013 .20-30 minutes were consumed to fill the questionnaire. Data were analyzed through the application of descriptive and inferential statistical approaches, and all the statistical procedures were tested at $P \leq 0.05$.

RESULTS:

Table (1):Descriptive Statistics for the socio demographics & some related variables for the studied sample with Comparison Significant(N= 282)

Demographical characteristics	Groups	Frequency	Percent	C.S. P-value
Age (yrs.)	16	42	14.9	χ^2= 44.8 P=0.000 HS
	17	70	24.8	
	18	116	41.1	
	19	54	19.1	
	Mean ± SD	17.65 ± 0.96		
Rank of Class	Fourth Class	110	39.0	χ^2= 5.809 P=0.055 NS
	Fifth Class	95	33.7	
	Sixth Class	77	27.3	
Educational status for Father	Illiterate	14	5	χ^2= 54.17 P=0.000 HS
	Read and Write	39	13.8	
	Primary School	83	29.4	
	Intermediate School	52	18.4	
	Secondary School	41	14.5	
	Institute / College	53	18.8	
Educational status for Mother	Illiterate	38	13.5	χ^2= 75.15 P=0.000 HS
	Read and Write	54	19.1	
	Primary School	93	33	
	Intermediate School	52	18.4	
	Secondary School	28	9.9	
	Institute / College	17	6	
Occupational state for Father	Government employee	119	42.2	χ^2= 227.3 P=0.000 HS
	Special sector employee	6	2.1	
	Free work	81	28.7	
	Retiring	51	18.1	
	Unemployed	24	8.5	
	Student	1	0.4	
Occupational state for Mother	Government employee	28	9.9	χ^2= 779.8 P=0.000 HS
	Free work	5	1.8	
	Retiring	5	1.8	
	House wife /Unemployed	243	86.2	
	Student	1	0.4	
Residency	Urbanized	223	79.1	χ^2= 405.8 P=0.000 HS
	Rural	52	18.4	
	sub urban	7	2.5	
Sectors	Al-Diwanyia	149	52.8	χ^2= 118.6 P=0.000 HS
	Al-Hamzah	53	18.8	
	Al-Shamyia	44	15.6	
	Afak	36	12.8	
Socioeconomic Status	Low : 89 - & less	133	47.2	χ^2= 99.6 P=0.000 HS
	Mod. : 90 - 120	134	47.5	
	High : 121 - 150	15	5.3	

(*) HS : Highly Sig. at P<0.01 ; NS : Non Sig. at P>0.05

Table (1) shows the observed frequencies, percents of the studied socio - demographical characteristics variables with their comparison significant, the results had indicated that there has

been a highly significant at P<0.01 were reported by abbreviations "HS" among different of the studied levels of all variables except with the "Rank of class " variable which was recorded a non significant different at P>0.05 with abbreviation "NS".

Table (2) : Summary statistics for the core responding of Questionnaire's sub and main domains for studying Adolescent Student's Knowledge toward premenstrual syndrome

Sub and Main Domains	No.	G.M.S.	Std. Dev.	R.S. %	Ass.
Student's knowledge about premenstrual syndrome definition	282	0.57	0.40	56.6	Pass
Student's knowledge about the risks which increase the occurrence of premenstrual syndrome	282	0.39	0.28	38.5	Failure
Physical symptoms	282	0.55	0.21	55.4	Pass
Psychological symptoms	282	0.73	0.30	72.6	Pass
Behavior symptoms	282	0.57	0.31	57.4	Pass
Student's knowledge about the premenstrual Syndrome symptoms	282	0.61	0.23	61.3	Pass
Student's knowledge about the negative effects of premenstrual syndrome	282	0.41	0.27	40.8	Failure
Modify daily diet through	282	0.39	0.28	39.1	Failure
Take medications according to doctor advice like	282	0.13	0.18	12.6	Failure
Student's Knowledge about the management ways to treat and reduce the symptoms of premenstrual syndrome	282	0.26	0.18	25.9	Failure
Knowledge	282	0.45	0.18	44.6	Failure

Table (2) shows the summarizes of the subjects responding at the sub and main domains that are done by using the mean of score for the initial responding of Questionnaire's items at each individuals after confounding the two categories of answers " I don't know " and the false choice whether "Yes" or "No" by failure responding, percents, global mean of score (GMS), standard deviation (SD), relative sufficiency (RS), and finally assessment due to under/upper cutoff point. The result shows that the main domain of "Knowledge", showed failure assessment, since their relative sufficiency(44.6%) recorded under cutoff point(50%) .

Table (3):Distribution of Overall Assessment for the studied sample with comparison significant

Factor	Groups	Frequency	Percent	Cum. Percent	C.S. (*) [P-value]
Distribution of Overall Assessment	Too low : 0 - 24	21	7.4	7.4	χ^2= 187.34 P=0.000 HS
	Low: 25 - 49	140	49.6	57.1	
	Intermediate : 50 - 74	114	40.4	97.5	
	High : 75 - 100	7	2.5	100	
	Total	282	100	-	

Table (3) reveals summarizes subjects responding of "Questionnaire's items" in terms of confounding assessments for overall assessment in four categories responses, " Too Low, Low, Intermediate, and High", according to four intervals " 0 – 24, 25 – 49, 50 – 74, and 75 – 100" respectively. The results shows that most of the studied responding were full inside second and third intervals, (i.e. Low, and Intermediate scores), and they are accounted 140(49.6%) and 114(40.4%) respectively, while the leftover were reported "Too Low, and High", and they are accounted

21(7.4%) and 7(2.5%) respectively. In addition to that, comparison significant shows highly significant different at P<0.01 among the distribution of the observed frequencies according with their non restricted expected outcomes.

Table (4): Association between Basis Information and Socio-Demographical Characteristics variables with an overall (Knowledge) assessment according to "Under/Upper" Cutoff point

Basis Information and Demographical Characteristics X Ass. Status	Contingency Coefficients	Approx. Sig.	C.S.(*)
Age Groups	0.126	0.206	NS
Environment	0.060	0.598	NS
Socioeconomic Status	0.049	0.709	NS
Menarche Age	0.121	0.655	NS
Duration of menstrual circulation	0.080	0.609	NS
Amount of menstrual cycle	0.102	0.224	NS
Is there anyone in the family suffer from premenstrual syndrome?	0.025	0.678	NS

(*) NS : Non Sig. at P>0.05 ; S : Sig. at P<0.05

To predicting /or to Find out the relationship between "Knowledge" and "Basis Information and Socio-demographic characteristics" variables, correlation ship through the contingency coefficient of the contingency tables had been constructed in table (4), which were illustrated and testing the distribution's effectiveness among different levels of the predicted variables and the two categories of an overall responding of knowledge assessment, which were reported (under / upper) cutoff point at score value (0.5) for the Global Mean of Score. The results has reported that the Socio-demographic characteristics variables had no significant relationship with the overall assessment of (Knowledge) main domain according to "Under/Upper" Cutoff point for the global mean of score values, since a non significant correlation ships were obtained at P>0.05, as well as the studied basis information variables, and we could conclude that the studied questionnaire due to this part "Knowledge" can be amend for all individual's population whatever a differences with their (Socio-demographic characteristics variables) and their studied basis information variables.

DISCUSSION:

Table1: The distribution of the sociodemographic characteristics of adolescents girls had revealed that the highest percentage (41.1%) percent of the study sample were within age 18 years. the findings agree with (5) study who reported that premenstrual syndrome is experienced by up to 5%-90% of girls in adolescent age The result indicated that (39%) of the study sample at fourth class. The highest percentage of the study sample parents were those with (primary school graduate).and fathers were government employee, while mothers were house wives. The highest percentage (79.1%) of the study sample were from urbanized residency. These results agree with (6) who mentioned that the frequency of PMS of the students who have spent the majority of their life in the city center is more than those who live in the rural area .The majority of the study sample is within low socioeconomic status and accounted for (47.2%) agree with (7)who found that PMS was diagnosed in 89 students approximately, two-thirds of subjects were with unsatisfactory income .

Table 2: Sub domain 1-Premenstrual Syndrome Definition:(As a combination of physical, psychological and behavioral symptoms that distressing the young and middle aged woman characterized by cyclic occurrence with the menstrual cycle) The majority of the study sample had sufficient information and knowledge about premenstrual syndrome definition :**Sub domain 2-** The risks which increase The occurrence of Premenstrual Syndrome: The majority of the study sample had insufficient information and knowledge about risks factors which increase the probability of premenstrual syndrome which includes (psychological pressure, family history, much consumption of caffeine , deficit intake of food rich in minerals and vitamins, and

smoking).(8)Stated that Dietary intake of chocolate, sugary drinks, vitamin B6 and genetic predisposition to specific symptoms has been occurrence in mother-daughter and twin relationships have potential role in PMS.

Sub domain3- The Premenstrual Syndrome Symptoms : The findings presented that the majority of the study sample had know that premenstrual syndrome symptoms includes:(Physical Symptoms, Psychological Symptoms ,Behavioral Symptoms). **Sub domain 4-** The negative Effects of Premenstrual Syndrome: The findings presented that the majority of the study sample had insufficient knowledge and information about the negative effects of premenstrual syndrome. (7) found that in his study among female medical students that 37% of students with PMS reported greater impairment of daily activities; concentration in class , attending college, going out of the home , daily home chores and homework tasks . **Sub domain 5-** The Management Ways to Treat and Reduce The symptoms of Premenstrual Syndrome : The findings illustrated that the majority of the study sample had insufficient knowledge and information about the management ways to treat and reduce premenstrual syndrome by modify daily diet, Take medication according the doctor advise .(9) that coping methods for PMS symptoms are not frequently implemented. These results show that women, who are highly affected by PMS, must be more educated in terms of dealing with these symptoms .The explanation of these findings show that the majority of adolescent students had insufficient knowledge about premenstrual syndrome ,since the knowledge main domain showed failure assessment ,since their relative sufficiency under cutoff point (44.6%) (Table2) . The findings of the study agree with study done by (10) on teenage girls found that (47.6 %) of girls had not heard about premenstrual syndrome ,(32.3 %) were familiar with the syndrome but lacked accurate knowledge ,and only (19.3 %)were well-informed ..

Table 3 : The results shows that most of the studied responding were full inside second and third intervals, (i.e. Low, and Intermediate scores), and they are accounted 140(49.6%) and 114(40.4%) respectively. The findings of the study agree with study done by (11) on adolescent girls found that were only (400) out of (1,092) participants (36.7 %) reported that they had heard of premenstrual syndrome .and the participants were subsequently informed that PMS is a mental and /or somatic disorder occurring cyclically in the premenstrual phase .

Table 4 : The results has reported that the Socio-demographic characteristics variables had no significant relationship with the overall assessment of (Knowledge) main domain according to "Under/Upper" Cutoff point for the global mean of score values, since a non significant correlation ships were obtained at $P>0.05$, as well as the studied basis information variables, and we could conclude that the studied questionnaire due to this part "Knowledge" can be amend for all individual's population whatever a differences with their (Socio-demographic characteristics variables) and their studied basis information variables.

CONCLUSIONS:

1. The study demonstrated that (41.1%) of adolescent students within age (18)years, as well as the majority of the study sample at fourth class regarding rank of class.
2. The majority of the study sample parents education level were (primary school), which reflect the knowledge extent and information of adolescent girls about this issue ,since their parents deficit the accurate knowledge .
3. Most of the study sample parents occupational status fathers were government employee and mothers were house wives as well as the majority of the sample were urbanized residency .
4. The majority of the study sample were reported within low category of socio-economic status, which might be interpreted the efficacy of poor healthy nutritional patterns as a one risk factors of PMS symptoms occurrence .
5. Most of the studied adolescent students reached puberty when they were at age (13) years as well as their menstrual flow duration was (4-5days) and the majority of adolescents students their menstrual flow amount was moderate and used (4-5)pads per day through the period .

6. The vast majority of study sample had a family history of PMS as well as the majority of the study sample have their sisters as a family member who suffering from PMS symptoms ,which explain as one of the risk factors of PMS symptoms occurrence .
7. The findings was indicated inadequate level of knowledge about PMS ,since most of the studied responding fall at the lower bound of the cutoff point .
8. The results indicated incorrect healthy behaviors which the adolescent students followed to reduce PMS symptoms, since most of the studied responding fall at the lower of the cutoff point .
9. as well as it would be meaning that the studied questionnaire can be amend for all individuals of the studied population whatever a differences with their (demographical) characteristics and menstrual cycle characteristics .

RECOMMENDATION:

1. development of school health services needed for better detection and management of PMS in the adolescent population .
2. Curriculum of nursing secondary schools should contain efficient knowledge about menstrual cycle disorders especially PMS .
3. Encouraged affected girls to seek medical advise from the medical staff the fundamental source of information that ensure appropriate medical treatment to eliminate of PMS problems .
4. Enhance adolescents students knowledge regarding PMS as well as adapt healthy life style through booklet, educating programs, mass media, articles….etc.

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